



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,683	03/19/2004	Matthias Niethammer	P04,008.2	8170

7590  
SCHIEF HARDIN LLP  
Patent Department  
6600 Sears Tower  
233 South Wacker Drive  
Chicago, IL 60606

09/16/2009

EXAMINER

FISHER, PAUL R

ART UNIT

PAPER NUMBER

3689

MAIL DATE

DELIVERY MODE

09/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/804,683

**Applicant(s)**

NIETHAMMER, MATTHIAS

**Examiner**

PAUL R. FISHER

**Art Unit**

3689

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 May 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. Amendment received on May 13, 2009 has been acknowledged. Claims 1-15, are currently pending and have been considered below.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly recited claim limitation of "an immobilely mounted medical imaging scanner" can not be found in the applicant's originally filed application and one of skill in the art would not know from the reading of the original specification that the applicant had a immobilely mounted medical imaging scanner. This matter is therefore considered new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. In claim 1, the newly recited term "immobily" renders the claim indefinite. It is unclear to the Examiner how something is immobile. Further the Examiner can not find the part in the applicant's specification where the term "immobily" is described. The term immobile is defined as not being able to move, however the Examiner asserts anything can move and the applicant has failed to show how something can be immobile or at least to what degree something can be immobile. For purposes of examination the Examiner is taking this to be that the scanner is mounted.

7. In claim 8, the newly recited term "immobily" renders the claim indefinite. It is unclear to the Examiner how something is immobile. Further the Examiner can not find the part in the applicant's specification where the term "immobily" is described. The term immobile is defined as not being able to move, however the Examiner asserts anything can move and the applicant has failed to show how something can be immobile or at least to what degree something can be immobile. For purposes of examination the Examiner is taking this to be that the scanner is mounted.

8. In claim 11, the newly recited term "immobily" renders the claim indefinite. It is unclear to the Examiner how something is immobile. Further the Examiner can not find the part in the applicant's specification where the term "immobily" is described. The term immobile is defined as not being able to move, however the Examiner asserts anything can move and the applicant has failed to show how something can be immobile or at least to what degree something can be immobile. For purposes of examination the Examiner is taking this to be that the scanner is mounted.

9. In claim 12, the newly recited term "immobily" renders the claim indefinite. It is unclear to the Examiner how something is immobile. Further the Examiner can not find the part in the applicant's specification where the term "immobily" is described. The term immobile is defined as not being able to move, however the Examiner asserts anything can move and the applicant has failed to show how something can be immobile or at least to what degree something can be immobile. For purposes of examination the Examiner is taking this to be that the scanner is mounted.
10. Claims 2-7 depend from claim 1 and are therefore rejected upon the same rationale.
11. Claims 9-10 and 13 depend from claim 8 and are therefore rejected upon the same rationale.
12. Claim 14 depends on claim 11, and is therefore rejected upon the same rationale.
13. Claim 15 depends from claim 12, and is therefore rejected upon the same rationale.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claims 1, 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Gregerson et al. (US 2003/0235266A1) hereafter Gregerson.**

**As per claim 1**, Shiraishi discloses a medical system (Paragraph 2; discloses that the apparatus can be used in a medical system) comprising:

an installed medical imaging apparatus comprising a plurality of permanently installed components including an immobilely mounted medical imaging scanner and a control unit for operating the installed medical imaging apparatus (Figure 2, paragraphs 30-34; discloses that the medical imaging apparatus or computer comprises a plurality of permanently installed components where permanently installed refers to a component that is not easily removed, these components are RAM, CPU, ROM, HDD or hard drive with corresponding software. These components include a control unit which as described in the applicant's specification page 3, line 17, is the unit which allows communication with the remote location for servicing and maintenance, in this case the control unit is a combination of the software located on the computer and the network interface that allows the computer to communicate with the remote location, Page 2, paragraph [0030]; discloses that the gantry is one unit attached to an X-ray device which the Examiner is construing to be a mounted imaging scanner the Gantry is also connected to an operating console);

a remote access interface connected to the control unit configured to allow the control unit to communicate with a remote location for remote servicing of the installed

medical imaging apparatus (Fig. 2, character 10, paragraph 34; discloses the remote access interface);

an external device said external device being separate from said permanently installed components of said installed medical imaging apparatus and being configured for temporary connection to at least one of said permanently installed components for operation in combination with said installed medical imaging apparatus, said external device comprising an external device interface (Fig. 1, character 103, paragraph 30; discloses the external device in this example case it is a gantry apparatus. Figure 2; discloses that the gantry apparatus has an interface to connect with the imaging apparatus. Page 3, paragraphs 41 and 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. This connection is considered to be temporary since it can be disconnected and reconnected when the system in upgraded);

said installed medical imaging apparatus having a remote access interface (Fig. 2, character 10, paragraph 34; discloses the interface for remote access) connected to said control unit, and connectible to said external device interface only when said external device is connected to at least one of said permanently installed components,

to allow communication between said control unit and said external device (Paragraph 34; discloses the communication with the external device); and

said control unit configured to temporarily place said external device in communication with said remote access interface, via said external device interface, to allow remote servicing of said external device from said remote location through said installed medical imaging apparatus via said remote access interface and said external device interface (Fig. 2, characters 9 and 10; disclose the router or communication channel that allows communication from the external device and the remote location).

While Shiraishi discloses an external device being a gantry apparatus it fails to explicitly disclose the specifics of the gantry apparatus particularly how it is installed.

Gregerson, which talks about a cantilevered gantry apparatus for x-ray imaging, teaches that a gantry apparatus is a separate unit which can be easily moved about by mounting it on a cart (Figures 1 and 2, page 2, paragraphs 23 and 24; teaches that a gantry apparatus can be easily moved about a room and that the images are not taken by the gantry but the scanning device which is mounted on the gantry and that the computer connected to the gantry is used with the gantry to move in particular user-defined positions).

Therefore, from this teaching of Gregerson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system provided by Shiraishi, with a mobile gantry apparatus as shown in Gregerson, for the purpose of ease of use. By making the gantry apparatus mobile the apparatus in



conjunction with the computer imaging apparatus could be used in more places throughout the hospital as suggested in Gregerson.

**As per claim 8**, Shiraishi discloses a method for remotely servicing an external device used in combination with an installed medical imaging apparatus that comprises a plurality of permanently installed components an immobily mounted medical imaging scanner and a control unit that operates the installed medical imaging apparatus, said external device being separate from said permanently installed components (Paragraphs 1-4; disclose that the invention relates to a medical system and services external devices Figure 2, paragraphs 30-34; discloses that the medical imaging apparatus or computer comprises a plurality of permanently installed components where permanently installed refers to a component that is not easily removed, these components are RAM, CPU, ROM, HDD or hard drive with corresponding software. These components include a control unit which as described in the applicant's specification page 3, line 17, is the unit which allows communication with the remote location for servicing and maintenance, in this case the control unit is a combination of the software located on the computer and the network interface that allows the computer to communicate with the remote location. Fig. 1, character 103, paragraph 30; discloses the external device in this example case it is a gantry apparatus. Figure 2; discloses that the gantry apparatus has an interface to connect with the imaging apparatus. Page 3, paragraph 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external

device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. Page 2, paragraph [0030]; discloses that the gantry is one unit attached to an X-ray device which the Examiner is construing to be a mounted imaging scanner the Gantry is also connected to an operating console), comprising the steps of:

providing said installed medical imaging apparatus with remote access equipment allowing remote servicing of said installed medical imaging apparatus (Fig. 2, characters 9 and 10, paragraph 3; disclose that the system includes remote access equipment for allowing the remote servicing of the installed medical apparatus);

connecting said external device to at least one of said permanently installed components (Fig. 2, characters 9 and 103; disclose that the external device, which is in this example a gantry apparatus, is connected to the installed medical apparatus. Page 3, paragraphs 41 and 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. This connection is considered to be temporary since it can be disconnected and reconnected when the system is upgraded);

to thereby also connect said external device to said remote access equipment in said installed medical imaging apparatus; and remotely servicing of said external device through said remote access equipment of the installed medical imaging apparatus (Fig. 2, characters 9, 10, and 103, paragraph 4; disclose that the external device is connected to the remote access equipment in the installed medical system and that the service provider is able to have access to this equipment to perform maintenance service. Page 3, paragraphs 41 and 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. This connection is considered to be temporary since it can be disconnected and reconnected when the system is upgraded).

While Shiraishi discloses an external device being a gantry apparatus it fails to explicitly disclose the specifics of the gantry apparatus particularly how it is installed.

Gregerson, which talks about a cantilevered gantry apparatus for x-ray imaging, teaches that a gantry apparatus is a separate unit which can be easily moved about by mounting it on a cart (Figures 1 and 2, page 2, paragraphs 23 and 24; teaches that a gantry apparatus can be easily moved about a room and that the images are not taken by the gantry but the scanning device which is mounted on the gantry and that the

computer connected to the gantry is used with the gantry to move in particular user-defined positions).

Therefore, from this teaching of Gregerson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system provided by Shiraishi, with a mobile gantry apparatus as shown in Gregerson, for the purpose of ease of use. By making the gantry apparatus mobile the apparatus in conjunction with the computer imaging apparatus could be used in more places throughout the hospital as suggested in Gregerson.

**As per claim 11**, Shiraishi discloses a method for servicing an external device used in combination with an installed medical imaging apparatus that comprises a plurality of permanently installed components an immobilely mounted medical imaging scanner and a control unit that operates the installed medical imaging apparatus, said external device being separate from said permanently installed components (Paragraphs 1-4; disclose that the invention relates to a medical apparatus and services external devices Figure 2, paragraphs 30-34; discloses that the medical imaging apparatus or computer comprises a plurality of permanently installed components where permanently installed refers to a component that is not easily removed, these components are RAM, CPU, ROM, HDD or hard drive with corresponding software. These components include a control unit which as described in the applicant's specification page 3, line 17, is the unit which allows communication with the remote location for servicing and maintenance, in this case the control unit is a combination of the software located on the computer and the network interface that allows the

computer to communicate with the remote location. Fig. 1, character 103, paragraph 30; discloses the external device in this example case it is a gantry apparatus. Figure 2; discloses that the gantry apparatus has an interface to connect with the imaging apparatus. Page 3, paragraph 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. Page 2, paragraph [0030]; discloses that the gantry is one unit attached to an X-ray device which the Examiner is construing to be a mounted imaging scanner the Gantry is also connected to an operating console), comprising the steps of:

establishing a communication link between said installed medical imaging apparatus and a service center remote from said installed medical imaging apparatus (Fig. 1, paragraph 3; disclose there is a communication link between the installed medical device and a service apparatus);

via said communication link, remotely servicing said installed medical imaging apparatus from said service center (Paragraph 3; discloses that the communication link is used to remotely service the installed medical apparatus);

connecting said external device to at least one of said permanently installed components (Fig. 2. paragraph 4; disclose that there is an external device, which in this

example is a gantry apparatus, which is connected to the installed medical imaging apparatus. Page 3, paragraphs 41 and 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. This connection is considered to be temporary since it can be disconnected and reconnected when the system in upgraded); and

to thereby route said communication link through said installed medical imaging apparatus to said external device via said at least one of said permanently installed components (Fig. 2, characters 9 and 10; disclose the routing of the communication link from the installed medical imaging apparatus); and

remotely servicing said external device from said service center through communication link routed through said installed medical imaging apparatus (Paragraph 4; discloses that the external device is serviced remotely through the installed medical imaging apparatus);

While Shiraishi discloses an external device being a gantry apparatus it fails to explicitly disclose the specifics of the gantry apparatus particularly how it is installed.

Gregerson, which talks about a cantilevered gantry apparatus for x-ray imaging, teaches that a gantry apparatus is a separate unit which can be easily moved about by

mounting it on a cart (Figures 1 and 2, page 2, paragraphs 23 and 24; teaches that a gantry apparatus can be easily moved about a room and that the images are not taken by the gantry but the scanning device which is mounted on the gantry and that the computer connected to the gantry is used with the gantry to move in particular user-defined positions).

Therefore, from this teaching of Gregerson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system provided by Shiraishi, with a mobile gantry apparatus as shown in Gregerson, for the purpose of ease of use. By making the gantry apparatus mobile the apparatus in conjunction with the computer imaging apparatus could be used in more places throughout the hospital as suggested in Gregerson.

**As per claim 12**, Shiraishi discloses a method for charging for servicing of an external device used in combination with an installed medical imaging apparatus that comprises a plurality of permanently installed components an immobile mounted medical imaging scanner and a control unit that operates the installed medical imaging apparatus, said external device being separate from said permanently installed components (Paragraphs 1-4; disclose that the invention relates to a medical apparatus and services external devices Figure 2, paragraphs 30-34; discloses that the medical imaging apparatus or computer comprises a plurality of permanently installed components where permanently installed refers to a component that is not easily removed, these components are RAM, CPU, ROM, HDD or hard drive with corresponding software. These components include a control unit which as described in

the applicant's specification page 3, line 17, is the unit which allows communication with the remote location for servicing and maintenance, in this case the control unit is a combination of the software located on the computer and the network interface that allows the computer to communicate with the remote location. Fig. 1, character 103, paragraph 30; discloses the external device in this example case it is a gantry apparatus. Figure 2; discloses that the gantry apparatus has an interface to connect with the imaging apparatus. Page 3, paragraph 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. Page 2, paragraph [0030]; discloses that the gantry is one unit attached to an X-ray device which the Examiner is construing to be a mounted imaging scanner the Gantry is also connected to an operating console), comprising the steps of:

installing said installed medical imaging apparatus manufactured by a first manufacturer (Fig. 1, paragraphs 1-4, 42; disclose the installing of medical apparatus manufactured by a first manufacturer);

providing said installed medical imaging apparatus with remote access equipment allowing said installed medical imaging apparatus to communicate with a service center located remote from said installed medical imaging apparatus for remote



servicing of said installed medical imaging apparatus (Fig. 2, characters 9 and 10, paragraph 3; disclose remote access equipment that allow the medical apparatus to communicate with a service center);

connecting said external device, manufactured by a second manufacturer, to at least one of said permanently installed components (Fig. 2, characters 9 and 103, paragraph 4 and 42; disclose an external device being connected to the installed medical apparatus by a second manufacturer. Page 3, paragraphs 41 and 42; discloses that the gantry apparatus is shown in the reference to be a separate device apart from the computer or operation console and can even be purchased from a separate vendor. From this it is shown that the external device or gantry apparatus is not one of the core components of the computer, and is considered to be a completely separate device, but is still usable in combination with the installed medical imaging apparatus since it can be connected to the computer and used in conjunction with the computer. This connection is considered to be temporary since it can be disconnected and reconnected when the system is upgraded);

to thereby establish communication, through said remote access equipment of said installed medical imaging apparatus, between said external device and said remote center, via said at least one of said permanently installed components, and thereby remotely servicing said external device through said medical imaging apparatus (Fig. 2, characters 9, 10 and 103, paragraph 4; disclose that communication is established between the remote access equipment and the installed medical apparatus for servicing by a remote center); and

imposing a monetary charge by the manufacturer (Paragraph 2 and 58; disclose that the service provider imposes a monetary charge for a service contract and states that the contract is negotiated with the customer and checked before services are rendered).

Shiraishi fails to explicitly disclose wherein the imposing of the monetary charge is by said first manufacturer to said second manufacturer dependent on said remote servicing of said external device. The Examiner however asserts that it would have been obvious given the definition of the term contract (from [www.dictionary.com](http://www.dictionary.com) that's that a contract is an agreement between two or more parties for the doing or not doing of something specified) that the first manufacturer would charge the second manufacturer for any services they agreed upon. The contract mentioned in paragraph 2 of Shiraishi states that the contract is between a customer since this is a maintenance agreement the manufacturer of the external device could have an agreement with the service provider that if services are performed on their device that they are to be charged the appropriate fee. The service provider mentioned in Shiraishi would need to have access to the component equipment and maintain this equipment to ensure that the entire system is working properly as mentioned in paragraph 4, and would not want to perform maintenance and updates to external devices that are not covered under the hospitals service agreement without having an agreement with the second vendor to get paid for services performed.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include imposing a charge to a second manufacturer of

an external device in the system provided by Shiraishi, for the purpose of ensuring that the service provider is not doing maintenance and upgrades to parts of the system for free. The service provider mentioned in Shiraishi would need to have access to the component equipment and maintain this equipment to ensure that the entire system is working properly as mentioned in paragraph 4, and would not want to perform maintenance and updates to external devices that are not covered under the hospitals service agreement without having an agreement with the second vendor to get paid for services performed.

While Shiraishi discloses an external device being a gantry apparatus it fails to explicitly disclose the specifics of the gantry apparatus particularly how it is installed.

Gregerson, which talks about a cantilevered gantry apparatus for x-ray imaging, teaches that a gantry apparatus is a separate unit which can be easily moved about by mounting it on a cart (Figures 1 and 2, page 2, paragraphs 23 and 24; teaches that a gantry apparatus can be easily moved about a room and that the images are not taken by the gantry but the scanning device which is mounted on the gantry and that the computer connected to the gantry is used with the gantry to move in particular user-defined positions).

Therefore, from this teaching of Gregerson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system provided by Shiraishi, with a mobile gantry apparatus as shown in Gregerson, for the purpose of ease of use. By making the gantry apparatus mobile the apparatus in

conjunction with the computer imaging apparatus could be used in more places throughout the hospital as suggested in Gregerson.

**16. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Gregerson et al. (US 2003/0235266A1) hereafter Gregerson, further in view of Lisa Fratt: "What's Up with Contrast Injectors?" (February 2003) hereafter Fratt.**

**As per claim 2**, the combination of Shiraishi and Gregerson discloses the above-enclosed invention, Shiraishi further discloses wherein said installed medical apparatus is a computed tomography apparatus and where there is an external device connected (Paragraph 2; discloses the system can be used in a CT scanner or MRI system, and the external device can be a plurality of machines including but not limited to a gantry apparatus).

Shiraishi fails to disclose wherein said external device is a power contrast agent injector.

Fratt, which talks about contrast injectors, teaches that the external device used in a computed tomography system can be a power contrast agent injector (Paragraph 4, heading Fact 3; teaches that the market for CT power injectors is growing due to new applications and procedures such as CT angiography, cardiac CT and perfusion imaging and that the faster the scanners are the more precise the delivery of contrast agent must be, from this it would have been obvious to exchange the external device used in the system provided by Shiraishi with a power contrast agent injector since it is

one of many devices that could be used in conjunction with this system and would have to be monitored to ensure proper care and maintenance is observed).

Therefore from this teaching of Fratt, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment provided by the combination of Shiraishi and Gregerson, with the use of power contrast agent injector in a CT system taught by Fratt, for the purpose of providing the users of the system with the newest and most up to date equipment. Shiraishi also mentions that the system can comprise a plurality of machines and uses the gantry apparatus as an example, it would have been obvious to exchange the external device used in the system provided by Shiraishi with a power contrast agent injector since it is one of many devices that could be used in conjunction with this system and would have to be monitored to ensure proper care and maintenance is observed.

**17. Claim 3 and 13-15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Gregerson et al. (US 2003/0235266A1) hereafter Gregerson, further in view of Bonissone et al. (6,609,217).**

**As per claims 3 and 13-15**, the combination of Shiraishi and Gregerson discloses the above-enclosed invention; but fails to explicitly disclose wherein said control unit comprises security protecting for isolating said external device at least from permanently installed components of said installed medical imaging apparatus that are not involved in the remote servicing of the external device.

Bonissone et al., which talks about a system and method for diagnosing and validating a machine over a network using waveform data, teaches wherein said control unit comprises security protecting for isolating said external device at least from permanently installed components of said installed medical imaging apparatus that are not involved in the remote servicing of the external device (Col. 15, lines 46-67, Col. 16, lines 1-9; teaches that the system incorporates a firewall for security and to isolate the communications from the external devices being monitored from the rest of the traffic on the network, this security is necessary in any corporate or business environment so that information that is deemed important or confidential is not accessible from the outside or unauthorized users).

Therefore from this teaching of Bonissone et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment provided by the combination of Shiraishi and Gregerson, with the use of a firewall in the medical system taught by Bonissone et al., for the purpose of security. This security is necessary in any corporate or business environment so that information that is deemed important or confidential is not accessible from the outside or unauthorized users.

18. **Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Gregerson et al. (US 2003/0235266A1) hereafter Gregerson, further in view of Bonissone et al. (6,609,217), further in view of Dell: [www.dell.com](http://www.dell.com) (June 10, 2002) hereafter Dell.**

**As per claim 4**, the combination of Shiraishi, Gregerson and Bonissone et al. teaches the above-enclosed invention, Bonissone et al. teaches the use of a firewall for security but fails to explicitly disclose if the firewall is hardware or software.

Dell, which talks about components that can be installed in a system, teaches wherein said security protection comprises security hardware (Page 17, Under FireWall/Secuirty/VPN, Page 22; teaches that firewalls can be in the form of hardware usable in a system).

Therefore from this teaching of Dell, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment that includes a firewall for security provided by the combination of Shiraishi, Gregerson and Bonissone et al., with the use of a hardware version of a firewall system taught by Dell, for the purpose of a dedicated piece of hardware, which would ease the burden of computing power off of the other computing devices in the system. Hardware firewalls have been known to be faster and more secure then their software alternatives.

**As per claim 5**, the combination of Shiraishi, Gregerson and Bonissone et al. teaches the above-enclosed invention, Bonissone et al. teaches the use of a firewall for security but fails to explicitly disclose if the firewall is hardware or software.

Dell, which talks about components that can be installed in a system, teaches wherein said security protection comprises security software (Page 17, Under FireWall/Secuirty/VPN, Page 19; teaches that firewalls can be in the form of software usable in a system).

Therefore from this teaching of Dell, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment that includes a firewall for security provided by the combination of Shiraishi, Gregerson and Bonissone et al., with the use of a software version of a firewall system taught by Dell, for the purpose of providing the user with an adequate security protection, with minimum change in the network setup and less over all cost. With a software firewall there is no need for extra hardware to be purchase or maintained just for the software to be installed on an existing system.

**19. Claims 6, 7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Gregerson et al. (US 2003/0235266A1) hereafter Gregerson, further in view of Dell.**

**As per claims 6, 7, 9 and 10**, the combination of Shiraishi and Gregerson discloses the above-enclosed invention, Shiraishi discloses having a remote access interface, but fails to explicitly disclose whether it is an original or retrofitted component.

However, the Examiner asserts that when constructing a network certain components are required, such as remote access interfaces. Dell teaches that it is old and well known to purchase network cards and modems as either original or retrofitted components for a system (Pages 3-14; teaches that there are many components that can be optional when setting up an original system Pages 7-8; teaches that remote management cards Network Adapter cards and modems are all optional equipment that can be purchased and installed when the system is originally built. Page 24; teaches that networking products such as network adapters and modems can be purchased



after the original equipment is set up. Customers would rather have the equipment installed original if available because it saves them time and resources, since they would have to buy the products separately and have them installed. Although the option of retrofitting components is useful for systems that may not have a need for this hardware, for example if the service was not available or was thought to not have been useful at the time, this can save them money on the initial building of the system. As the customer's needs change the equipment needs to be installed or upgraded. Even if the customer had a network adapter or modem installed in their original system they may have a desire at a future date to upgrade that equipment at a later date which advancements in hardware become available).

Therefore from this teaching of Dell, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment provided by the combination of Shiraishi and Gregerson, with the use of originally installed or retrofitted components taught by Dell, to provide their customers flexibility. Customers would rather have the equipment installed original if available because it saves them time and resources, since they would have to buy the products separately and have them installed. Although the option of retrofitting components is useful for systems that may not have a need for this hardware, for example if the service was not available or was thought to not have been useful at the time, this can save them money on the initial building of the system. As the customer's needs change the equipment needs to be installed or upgraded. Even if the customer had a network adapter or modem installed in their original system they may have a

desire at a future date to upgrade that equipment at a later date which advancements in hardware become available.

***Response to Arguments***

20. Applicant's arguments filed May 13, 2009 have been fully considered but they are not persuasive.

21. In response to the applicant's argument that, "those of ordinary skill in the field of medical imaging consider a gantry of the type disclosed in the Gregerson et al. reference to be the core of the permanently installed device, rather than some type of "external device"," the Examiner respectfully disagrees. The applicant has provided no proof of this statement other than their claim that one of ordinary skill would know this to be true. Further the Examiner has shown in the above rejection that the Gantry is a separate component of the system and external from the imaging device itself.

22. The applicant then acknowledges that the Gantry can be removed and replaced, but then argues that, "This does not, however, alter the fact that those of ordinary skill in the field of medical imaging would never consider a gantry to be a "remote device" with regard to a permanently installed medical imaging system, even if the gantry could, under certain circumstances, be disconnected from one or more of the other components of the permanently installed system. Simply because a particular component can, under certain circumstances, be disconnected and replaced from the overall permanently installed installation does not cause person of ordinary skill in the field of medical imaging to then consider that component to be a "remote device". The adjective "remote" in this context is always used by those of ordinary skill in the field of

medical imaging to refer to some type of device that is not always needed for every imaging procedure, such as a contrast agent injector, and would not consider a "remote device" to mean a core component of the apparatus that is always and necessarily used in every imaging procedure, such as the gantry disclosed in the Gregerson et al. reference," the Examiner respectfully disagrees. As stated above the applicant has provided no proof for this statement. Further as shown above the Gantry is known to be separate from the rest of the device. Further the term gantry is defined by <http://www.medilexicon.com/medicaldictionary.php?t=36306> as a frame housing the x-ray tube, collimators, and detectors in a CT machine, with a large opening into which the patient is inserted; a mechanical support for mounting a device to be moved in a circular path. From this definition the gantry is not part of the scanning device but rather acts as the housing for this device, the apparatus in which the scanners are mounted. This can also be seen in Gregerson reference page 1 page [0009]. From these definitions and the references cited the Examiner asserts that the Gantry is an external component and is not a scanner itself. For these reasons the Examiner asserts that the references cited read over the claims as currently written.

23. In response to the applicant's argument that, "the aforementioned independent claims has been amended to explicitly state that the permanently installed components include an immobile mounted medical imaging scanner. The gantry in the Gregerson et al. reference clearly falls within that definition, and therefore the gantry in the Gregerson et al. reference can only be considered as falling within the explicitly described description of the permanently installed components in the independent

claims. Therefore, the gantry in the Gregerson et al. reference is not, by definition, a "candidate" for being equated with the "remote device" in the independent claims of the present application," the Examiner respectfully disagrees. As stated above a Gantry by definition is not an "immobily mounted medical imaging scanner" as suggested by the applicant rather it does not include a scanner at all. By definition a scanner can be mounted to it but it is not considered to be the device itself. The Examiner asserts that the gantry is a remote device separate from the imaging device itself. For this reason the rejections have been maintained.

24. In response to the applicant's argument that, "Since the gantry in the Gregerson et al. reference obviously cannot be connected to itself, as would be the case if, by virtue of being a "immobily mounted medical imaging scanner" it must be considered as one of the permanently installed components, and each of the claims explicitly state that the "remote device" is connected to at least one of the permanently installed components. The gantry in the Gregerson et al. reference cannot satisfy both descriptions," the Examiner respectfully disagrees. As shown above a Gantry can not be considered a "immobily mounted medical imaging scanner" since it does not contain a scanner at all. Since it is not a "immobily mounted medical imaging scanner" the applicant's argument regarding it can not be a "remote device" is incorrect the Gantry is not a scanner and is remote from the imaging capturing device. Therefore all rejections are maintained.

25. All rejections made towards the dependent claims are maintained due to the lack of a reply by the applicant in regards to distinctly and specifically point out the supposed

errors in the examiner's action in the prior Office Action (37 CFR 1.111). The Examiner asserts that the applicant only argues that the dependent claims should be allowable because the independent claims are unobvious and unpatentable over Shiraishi, in view of Gregerson et al.

### ***Conclusion***

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **PAUL R. FISHER** whose telephone number is (571)270-5097. The examiner can normally be reached on **Mon/Fri [8am/4:30pm]**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571)272-6805. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PRF

/Dennis Ruhl/  
Primary Examiner, Art Unit 3689